UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,425	02/27/2004	Michael L. Petroff	044191/0300141 PRN-012	5685

24498 7590 09/16/2011

Robert D. Shedd, Patent Operations
THOMSON Licensing LLC
P.O. Box 5312
Princeton, NJ 08543-5312

EXAMINER	
MONIKANG, GEORGE C	

ART UNIT	PAPER NUMBER
2614	

NOTIFICATION DATE	DELIVERY MODE
09/16/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@technicolor.com
pat.verlangieri@technicolor.com
russell.smith@technicolor.com

Office Action Summary	Application No.	Applicant(s)	
	10/789,425	PETROFF, MICHAEL L.	
	Examiner	Art Unit	
	GEORGE MONIKANG	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2011*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-28* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-28* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/14/2011, with respect to the rejection(s) of claim(s) 1-28 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lee et al, US Patent pub. 20030123680 A1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 7, 12-13, 18-19, 22 & 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by applicants admitted prior art (hereinafter referred to as AAPA, fig. 1; paras 0002-0006), in view of Lee et al, US Patent pub. 20030123680 A1.

1. Re Claim 1, AAPA discloses a speaker system providing enhanced intelligibility of a reproduced audio program signal in the presence of ambient noise (*para 0005*) the speaker system comprising: means for receiving the reproduced audio program signal (*fig. 1: Sin; para 0005*); a microphone for monitoring at least ambient noise signals and for providing a microphone output signal (*fig. 1: MIC1; para 0005*); means for enabling the microphone output signal during first increments of time when the reproduced audio program signal is substantially off (*para 0005: process control signal S3 is only provided when program signal S4 is in off state*), and disabling the microphone output signal during second increments of time when the reproduced audio program signal is on (*para 0005: process control signal S3 is only provided when program signal S4 is in off state*), such that the microphone output signal includes ambient noise signal components without including reproduced program signal components (*para 0005: system operates when Sin is below threshold level, if Sin is above threshold level then system will be in ON state which will allow reproduced program signal components*); and a signal processor (*fig. 1: P1*), in communication with the means for receiving and the means for enabling/disabling (*fig. 1: P1, Sin & S3; para 0005*), for applying the first transfer function to the reproduced audio program signal (*fig. 1: f1; para 0005*), increasing gain adjustments to the reproduced audio program signal as a function of an increasing amplitude of the output signal (*fig. 1; para 0006: varying changes of amplitude due to ambient noise level could be incremental*), decreasing gain adjustments to the reproduced audio program signal as a function of a decreasing amplitude of the output signal (*fig. 1; para 0006: varying changes of amplitude due to*

ambient noise level could be incremental). The AAPA fails to disclose incrementally increasing/decreasing the gain of the signal as a function of average amplitude of the microphone output signal over a period of time.

2. However, Lee et al discloses a system where a microphone monitors ambient noise, computes an average of the monitored ambient noise over a predetermined period of time, then incrementally increase/decrease the volume of a sound signal accordingly (*Lee et al, fig. 2: 9; para 0033; para 0028: TABLE 1: shows the increments of the volume level based on the amount of ambient noise average*). It would have been obvious to modify AAPA with the ability to monitor the ambient noise and incrementally increase/decrease the gain as taught in Lee et al for the purpose of making the AAPA system more efficient.

3. Re Claim 2, the combined teachings of AAPA and Lee et al disclose the speaker system according to claim 1, but fail to explicitly disclose wherein the incremental gain adjustments are in steps of between about 1 dB and about 10 dB.

4. However, such a limitation is the inventor's preference thus it would have been obvious for Deville et al to modify the system such that, the stored gain at each gain adjustment step are between 1 dB and about 10 dB for the motivation of providing a broad sound range.

5. Claim 7 has been analyzed and rejected according to claim 1.

6. Claim 12 has been analyzed and rejected according to claim 1.

7. Claim 18 has been analyzed and rejected according to claim 1.

8. Claim 22 has been analyzed and rejected according to claim 1.

9. Claim 25 has been analyzed and rejected according to claim 1.

10. Claim 13 has been analyzed and rejected according to claims 1-2.

11. Claim 19 has been analyzed and rejected according to claim 2.

12. Claim 26 has been analyzed and rejected according to claims 1-2.

13.

14. Claims 3, 5, 8, 10, 14, 16, 20-21, 23-24 & 27-28 are rejected under 35 U.S.C. 103 (a) as being unpatentable over AAPA, and Lee et al, US Patent pubs. 20030123680 A1 as applied as applied to claim 1 above, in view of Bosnak, US Patent 4554533.

15. Re Claim 3, the combined teachings of AAPA and Lee et al disclose the speaker system according to claim 1, but fail to disclose further comprising a first amplifier having an input and an output, the first amplifier input coupled to the output signal of the signal processor and the first amplifier output coupled to input of a first speaker. However, Bosnak does (*Bosnak, fig. 1: 20, 14'*). It would have been obvious to modify the system of AAPA with an amplifier connection as taught in Bosnak (*Bosnak, fig. 1: 20, 14'*) for the purpose of producing higher levels of sound.

16. Re Claim 5, the combined teachings of AAPA, Lee et al and Bosnak disclose the speaker system according to claim 3, further comprising: a low-pass filter having an input and an output (*Bosnak, fig. 1: 52*), the filter input coupled to the signal process output signal of the signal process and the filter output augmenting the first speaker output in a low frequency region (*Bosnak, fig. 1: 20, 52*); and a second amplifier having an input and output (*Bosnak, fig. 1: 14*), the first amplifier input coupled to the filter

output and the first amplifier output coupled to a second speaker input of a second speaker (*Bosnak, fig. 1: 14, 10*).

17. Claim 8 has been analyzed and rejected according to claim 3.

18. Claim 10 has been analyzed and rejected according to claim 5.

19. Claim 14 has been analyzed and rejected according to claim 3.

20. Claim 16 has been analyzed and rejected according to claim 5.

21. Claim 20 has been analyzed and rejected according to claim 3.

22. Claim 21 has been analyzed and rejected according to claim 5.

23. Claim 23 has been analyzed and rejected according to claim 3.

24. Claim 24 has been analyzed and rejected according to claim 5.

25. Claim 27 has been analyzed and rejected according to claim 3.

26. Claim 28 has been analyzed and rejected according to claim 5.

Claims 4, 6, 9, 11, 15 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA, Lee et al, US Patent pubs. 20030123680 A1 and Bosnak, US Patent 4554533 as applied to claim 3 above, and in further view of Tanaka et al, US Patent 5588065.

Re Claim 4, the combined teachings of AAPA, Lee et al and Bosnak disclose the speaker system according to claim 3, but fail to disclose wherein the first speaker comprises a single speaker driver having a diaphragm diameter not greater than about 100 centimeters (cm). However, Tanaka et al does (*Tanaka et al, col. 11, lines 52-67*). It would have been obvious to incorporate the speaker of Tanaka et al (*Tanaka et al, col.*

11, lines 52-67) into the speaker system of AAPA, Lee et al and Bosnak for the purpose of providing direct but incremental amplitude compensation.

Claim 6 has been analyzed and rejected according to claim 4.

Claim 9 has been analyzed and rejected according to claim 4.

Claim 11 has been analyzed and rejected according to claim 4.

Claim 15 has been analyzed and rejected according to claim 4.

Claim 17 has been analyzed and rejected according to claim 4.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on 9:00-5:00 EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GEORGE MONIKANG/
Examiner, Art Unit 2614 9/9/11

/Devona E. Faulk/
Primary Examiner, Art Unit 2614